PreCalculus 4.3B Worksheet Name _____ Per _____

Sketch each angle.

1. 135° 2. 450° 3. -540° 4. $\frac{4\pi}{3}$ 5. $\frac{21\pi}{4}$ 6. $\frac{-2}{3}$

Convert each angle from radians to degrees or degrees to radians.

7. 135° 8. 450° 9. -540° 10. $\frac{4\pi}{3}$ 11. $\frac{21\pi}{4}$ 12. $\frac{-2}{3}$

Find two coterminal angles, one positive and one negative, for each angle.

13. 135° 14. 450° 15. -540° 16. $\frac{4\pi}{3}$ 17. $\frac{21\pi}{4}$ 18. $\frac{-2}{3}$

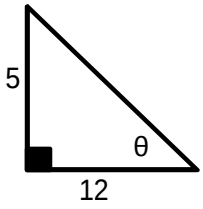
Find the complement and supplement for each angle (if possible).

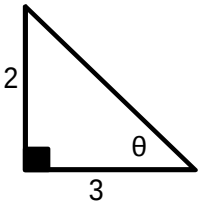
19. 35° 20. 150° 21. 27° 22. $\frac{2\pi}{3}$ 23. $\frac{\pi}{4}$ 24. $\frac{2\pi}{5}$

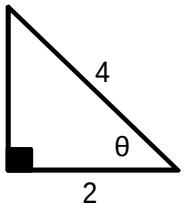
25. A pendulum swings through an angle of 20° each second. If the pendulum is 40 inches long, how far does its tip move each second?

26. A neighborhood carnival has a Ferris wheel whose radius is 30 feet. You measure the time it takes for one revolution to be 70 seconds. What is the speed on this Ferris wheel in miles per hour?

Find the six trig. functions for each problem.

27. 


28. 


29. 


Find the remaining trig. functions using identities or definitions.

30. $\csc\theta = 5$

31. $\tan\theta = \frac{1}{2}$

32. $\sin\theta = \frac{\sqrt{3}}{4}$

Evaluate without a calculator. For angles, give the answer in both radians and degrees.

33. $\cot 30°$

34. $\csc 45°$

35. $\cos\theta = \frac{1}{2}$

36. $\tan\theta = \frac{\sqrt{3}}{3}$

Evaluate with a calculator. For angles, give the answer in both radians and degrees.

37. $\tan 23°$

38. $\sin 50°$

39. $\sec\theta = 1.2$

40. $\cos\theta = .46$